

# NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

## FACT SHEET (pursuant to NAC 445A.236)

**Permittee Name:** Jean Development Company  
dba Gold Strike Hotel & Gambling Hall  
P.O. Box 19278  
Jean, Nevada 89019

**Permit Number:** NEV87006

**Description of Discharge:**

**Location:** Gold Strike Wastewater Treatment Plant  
2 mile east of U.S. I-15 on Jean Prison Road  
Jean, Nevada, Clark County 89019

Latitude 35° 46' 35" N, Longitude 115° 19' 14" W  
T. 25S., R. 59E., Section 13 MDB&M

**General:** The wastewater Treatment Plant (WWTP) and rapid infiltration basins (RIBs) associated with this facility are located on Jean Prison Road, mid-way between the airport and prison in Jean, Nevada. The WWTP receives domestic and commercial wastewater, which is generated by the Gold Strike Hotel and Casino (800) rooms, gas station, U.S. Post Office, Nevada Highway Patrol and other small facilities. The WWTP formerly served the Nevada Landing Hotel & Casino on the west side of I-15, which has been recently demolished. Future growth in the service area may include housing and commercial businesses related to the planned supplemental commercial service airport in Ivanpah Valley.

The WWTP is a Marwood activated sludge/extended aeration package treatment plant which treats domestic and commercial sewage to secondary treatment standards. The activated treatment process consists of aeration, clarification and disinfection. Waste activated sludge is aerobically digested and then dried in concrete sludge drying beds prior to off site disposal. The treated effluent is disinfected to meet Class B effluent (NAC 445A.276) standards. Treated effluent is discharged to two rapid infiltration basins (RIBs), and used for irrigation and dust control. Seasonal spray and drip irrigation of grass and ornamental trees grown around the entrance and parking areas of the property is conducted. Treated effluent is supplied to construction companies for dust control purposes in the Jean area.

**Receiving Water Characteristics:** The receiving water for effluent percolation in the RIBs is the groundwater of the State. The reported depth to groundwater in Jean is at 365 feet, based on records of potable water supply wells of the Las Vegas Valley Water District. Groundwater monitoring is not required based upon the depth to groundwater being in excess of 200 feet.

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**Flow:** 0.600 MGD 30-Day Average, 0.650 Daily Max.  
Flows are variable due to the fluctuations in tourism volume, with peak periods on weekends and holidays. Flows currently are 0.179 30-day average and 0.271 daily max with the Nevada Landing property no longer contributing sewage to the WWTP.

**Effluent Limitations:** Outfall 001 - Disposal in RIBs; Outfall 002 - Effluent reuse irrigation; Outfall 003 - Dust Control.

**Table 1: Plant Discharge Limitations - Outfall 001, 002, 003**

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD (Influent)	0.60	0.65	Continuous	Flow Meter
BOD <sub>5</sub> , mg/L (Influent)	Monitor & Report	Monitor & Report	Monthly	Composite
BOD <sub>5</sub> , mg/L (Effluent)	30	45	Monthly	Composite
TSS, mg/L (Influent)	Monitor & Report	Monitor & Report	Monthly	Composite

TSS, mg/L (Effluent)	30	45	Monthly	Composite
pH, S.U. (Effluent)	Between 6.0 & 9.0		Monthly	Discrete
Fecal Coliform, cfu or mpn/100 ml (Reuse Effluent)*3	2.2	23	Monthly	Discrete
Total Nitrogen as N, mg/L (Effluent)	Monitor & Report		Monthly	Composite

Notes: \* Compliance point after disinfection at the Gold Strike WWTP.  
CFU = Colony Forming Units MPN = most probable number.

- Both influent and effluent shall be monitored, discharge limitations apply to effluent only.
- Applicable to listed outfall 002 must meet the quality for Category B reuse water defined in NAC 445A.275 to NAC 445A.278.
- If operations dictate that disposal is only to the RIBS, there will be no limit on the Fecal Coliform.

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**Table 2: Effluent Reuse Limitations**

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measuremen t Frequency	Sample Type
Irrigation Rate, MGD	Monitor & Report <sup>1</sup>		Continuous	Flow Meter
Annual Application Volume, Acre-Feet (AF) <sup>2</sup>	212 Acre-Feet (Volume determined from Consumptive Use Balance)		Cumulative Annual Total Irrigation Flows	Flow Meter
Annual (Actual) Nitrogen Loading (lbs/year)	Pounds (lbs) per Year (Mass determined from Nitrogen Budget) M & R		Calculated Annually & reported in 4 <sup>th</sup> Quarter DMR <sup>3</sup>	Calculated from records

Allowable Nitrogen Loading (lbs/year)	Pounds (lbs) per Year (Calculated in EMP- 250 lbs)	Reported in 4 <sup>th</sup> Quarter DMR <sup>3</sup>	Calculated in EMP
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1. Monthly application rates in the Effluent Management Plan (EMP) should be used as a guide.
2. Annual Application Volume is based upon 110% of the application volume determined in the EMP.
3. Annual nitrogen balance calculations and reporting shall continue for the permit term.

**Procedures for Public Comment** The Notice of the Division's intent to reissue a permit authorizing the facility to discharge to the groundwater of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Las Vegas Review-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of publication of the public notice in the newspaper by 09/17/2008. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

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**Rational for Permit Requirements:** The Division requires that wastewater meet secondary treatment standards for BOD<sub>5</sub>, TSS, and pH. Monitoring is required to assess the level of treatment being provided, and to determine when design capacity is being approached, to protect public health and to protect the quality of the groundwaters of the state. Effluent used for irrigation and dust control shall meet Category B disinfection standards. Total nitrogen as N is monitored in the effluent on a monthly basis for reuse. An annual nitrogen mass balance is provided to ensure that excess nitrogen is not applied beyond plant materials uptake requirements.

**Proposed Determination:**

The Division has made the tentative determination to reissue the proposed permit for a period of five (5) years.

**Schedule of compliance:**

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- b. Photos of the current signage for the reuse areas and signage on the fence surrounding the WWTP shall be provided to the Division by June 30, 2008. Any landscaped areas being irrigated with treated effluent shall be posted with signs per Part I.A.6. of this permit. .
- c. A plan and schedule for removal of vegetation from each of the rapid infiltration basins shall be submitted to the Division by December 30, 2008.

**Rationale for Permit Requirements**

Prepared by:  
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Bureau of Water Pollution Control  
May 2008  
August 2008